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DEPARTMENT OF TRANSPORTATION
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D. C. 20591

August 21, 1967

IN REPLY
REFER TO: SB-1-96

Honorable William F. McKee
Administrator
Federal Aviation Administration
Department of Transportation
Washington, D. C. 20590

Dear General McKee:

The investigation of a recent fatal accident of a Cessna 188 Agwagon at Sharon Springs, Kansas, on June 27, 1967, disclosed a design condition where a single failure of a rudder pedal could cause a rudder deflection which cannot be counteracted by the pilot.

The installation of the rudder centering feel springs to the upper portion of the pedal arms is such that a failure of the weld at the torque tube attachment will cause an immediate forward deflection of the opposite rudder pedal and a corresponding rudder deflection with no means available for the pilot to counteract this input. Flight tests by Cessna in this failed configuration have shown that control is marginal at low landing speeds and would be further derogated by the element of surprise and any attendant unfavorable bank angle when the failure occurs.

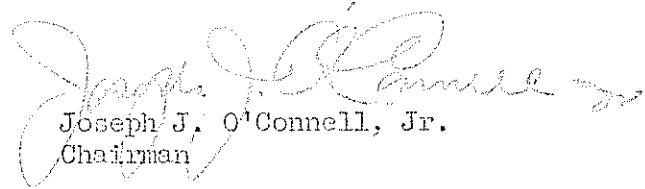
The Board feels that a fail-safe policy should be followed in the primary control systems and thus recommends that an Airworthiness Directive be issued in conjunction with a Cessna Directive to either reverse the direction of the centering spring forces on the pedals so the pilot may counteract an unwanted rudder input following a pedal failure or to relocate the centering springs elsewhere along the cable runs to allow for a single failure either in the pedals or the springs and still provide redundancy to allow the pilot to counteract the failure.

The accident is still under active investigation and a probable cause has not been assigned at this time.

Honorable William F. McKee (2)

This recommendation has been discussed with your engineering personnel in the Central Region. The Board's Engineering Division is available to provide any further information or assistance.

Sincerely yours,



Joseph J. O'Connell, Jr.
Chairman